

The amount of water may be varied, with variations in the amount of other ingredients, in order to provide the desired viscosity of joint compound, of about 400 to 700 Brabender units.

Many other ingredients may be added to the formulation of a joint compound in accordance with the invention, all as are well known in the industry, including, for example, about 1 percent starch binder, about 5 percent non-fibrous talc, about 0.1 percent defoaming agent or about 0.5 percent propylene glycol antifreeze, or combinations thereof.

The mixing of the ingredients of the ready-mix joint compound 12 is of importance. In the preferred method, substantially all of the water is put into the mixer first. As the other ingredients are added, the mixing of the ingredients with the water and with each other is carried on.

Whereas the description above of what is shown in the drawing described a ready-mix joint compound 12, it will be understood that the drawing is also suitable for understanding the use of a dry powder formulation which is in accordance with the present invention. A dry powder formulation as disclosed herebelow may be mixed with water and is then used in exactly the same way as ready-mix joint compound 12.

PARTS BY WEIGHT	
Polyvinyl alcohol binder	0.80
Starch binder	1.54
Fine ground limestone	50.70
Dry ground mica	6.14
Fine ground sepiolite clay	3.06
Polyacrylamide resin	.01
Hydroxypropyl methylcellulose	.25
	62.50

The above dry powder formulation, when mixed with about 37.5 parts by weight of water will produce an on-the-job mixture of joint compound which performs quite similar to prior dry powder formulations containing asbestos.

Minor amounts of dry preservative and defoaming agents and other known additives may also be incorporated in the dry formulations made in accordance with the invention, similar to their use in prior asbestos-containing dry powder formulations.

Variations may be made in the relative content of the various ingredients in accordance with the invention. The ingredients of the dry powder formulation and the solids of the ready-mix paste may vary substantially as follows:

PERCENTAGE BY WEIGHT	
Fine ground fillers	50-99
Binder	1-50
Thickener	0.1-5.0
Sepiolite clay	0.1-5.0

The formulations will include a floccing agent for the clay, such as about 0.1 to 5.0 parts by weight for every 10 parts sepiolite clay; however, this function may be performed by the thickener.

Joint compounds made in accordance with the invention have been found to approach the characteristics and qualities of prior joint compounds containing asbestos closer than any other known asbestos-free formulation.

Having completed a detailed disclosure of the preferred embodiments of our invention, so that others may practice the same we contemplate that variations may be made without departing from the essence of the invention.

I claim:

1. A drywall joint compound, said compound being free of asbestos fiber and attapulgite clay, and comprising as dry solids, by weight, from about 50 to 98% of fine ground powdered fillers of about minus 325 mesh particle size and other than sepiolite clay, from about 1 to 50 percent of a binder composition for said filler, from about 0.1 to 5 percent of a thickener other than sepiolite clay, and from about 0.1 to 5 percent fine powdered sepiolite clay.

2. A drywall joint compound as in claim 1 further comprising a floccing agent for said clay other than said thickener in an amount of about 0.1 to 5.0 parts by weight for every 10 parts by weight of sepiolite clay.

3. A drywall joint compound as in claim 1 wherein said floccing agent is a polyacrylamide resin.

4. A dry powder joint compound formulation as defined in claim 1, comprising about 50 parts by weight fine powdered filler, about 1 part by weight polyvinyl alcohol, about 3 parts by weight fine powdered sepiolite clay, and about 0.2 part thickener.

5. A ready-mix joint compound as defined in claim 1 wherein said dry solids are thoroughly mixed in a paste with sufficient water to produce a paste viscosity of about 400 to 700 Brabender units.

6. A ready-mix joint compound as defined in claim 5 comprising about 50 parts by weight fine powdered filler, about 6 parts by weight latex binder, a minor amount of plasticizer for said binder relative to the amount of said binder, about 1 part by weight sepiolite clay, about 0.5 part by weight thickener and about 35 parts by weight of water.

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